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ABSTRACT

To determine whether repeated reading of stories in a developmental reading program would build fluency in slow readers, a study examined five students in the "low" reading group of a self-contained third grade classroom. During a 10-week period, students read a series of 10 stories from the basal reader "Widening Circles." Instruction in the first five stories of the series followed the traditional format as suggested in the teacher's guide accompanying the series. Instruction in the second five stories included repeated reading along with tape recordings of the stories. Prior to and following the reading instruction for each story, student readings were timed and the number of word recognition errors for each reading was recorded. Results indicated that the repeated reading of stories in a developmental reading program did not help slow readers read with fluency. (Two figures and two tables of data are included, and one table of data and 26 references are appended.) (MM)

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Building Fluency Through Repeated Reading in the Third Grade

by

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ABSTRACT

The purpose of the study was to determine whether repeated reading of stories in a developmental reading program would affect fluency in slow readers. The subjects were five students in the "low" reading group in a self-contained third grade classroom who read ten stories during the study. Instruction in the first five stories in the reading series followed the traditional format, as suggested in the teacher's guide accompanying the series. Instruction in the second five stories included repeated reading along with tape recordings of the stories. The results of the study indicated that the repeated reading of stories in a developmental reading program did not help slow readers read with fluency.

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Many students of normal intelligence in the elementary grades read at below grade level despite a reduced pace in developmental reading instruction and participation in remedial reading programs from the onset of formal reading instruction. Pelosi (1982) describes such students as having adequate sight vocabularies, phonics skills and good literal comprehension, but formal and informal assessments and teacher judgment indicate that they are reading at a level below expectancy.

In a heterogeneously grouped classroom, placement of such students for purposes of reading instruction is usually in the "low," or "bottom" group, the group that is reading at below grade level. Frequently, unskilled readers do not advance beyond the low reading group throughout their years of formal reading instruction in the elementary school; and reading, especially in the content areas, often becomes a frustrating experience. The major concern for the classroom teacher, then, is to implement techniques of reading instruction that enable the unskilled reader to increase his reading speed and comprehension, to develop fluency.

Research indicates that the skilled reader reads fluently, decoding and comprehending simultaneously (LaBerge and Samuels, 1974). The unskilled reader reads word-by-word, with little understanding of the text. The investigation of repeated reading as a method of developing fluency in unskilled readers was largely a response to the LaBerge and Samuels theory of automaticity.

In 1974, David LaBerge, an experimental psychologist, and S.J. Samuels, and educational psychologist, collaborated on the design of a model of information processing. Their model identified three stages through which a reader moves toward attaining "automaticity." At the first stage, the unskilled reader devotes all of his attention toward making accurate sound-symbol associations. At the second stage, the reader can decode accurately, and he directs his energy toward deriving the meaning of the words. At the third stage, the reader is an "automatic" reader, and he can decode and comprehend simultaneously.

In 1976, Carol Chomsky designed and implemented a program of repeated reading to assist five poorly-skilled third grade readers attain fluency. Chomsky's project was successful, and she attributed its success to the fact that the students were highly motivated because of the novelty of the project and also, because, for the first time, they were experiencing success as readers. In 1979, S.J. Samuels conducted a study in which he demonstrated how the repeated reading of short passages led to the development of fluency in normal and problem learners.

Schreiber (1980) attempted to identify specific factors that enabled the readers in the Samuels study (1979) to move from the recognition stage to the automatic stage. He concluded that one reason for the success of repeated reading in promoting fluency was that the reader learned to visually

identify morphological and syntactic cues which he could translate into prosodic cues or, "reading with expression."

In 1980, Stankovich concluded that the attainment of fluency is a "compensatory-interactive" process in which higher-order processing skills compensate for the absence of lower-order skills. Repeated reading utilizes fluency, a higher-order skill, to enable the unskilled reader, who is focusing on word meanings, to achieve fluency. Cunningham (1979) said that reading fluently helps a student read fluently.

Hypothesis

Although laboratory studies essentially support the automaticity theory, little evidence is available to indicate that repeated reading is advantageous as a classroom technique to improve reading performance. To add evidence on this topic, a study was conducted to determine whether repeated reading of a story in a developmental reading program would affect fluency. It was hypothesized that no significant mean differences in fluency would be demonstrated by the children of the "low" reading group in a third grade class who read the stories in their developmental reading series with repeated reading or without repeated reading.

Procedure

The subjects for the study were five students who comprised the corrective, or "low" reading group in a self-

contained third grade classroom. The group consisted of three boys and two girls. The students attended a K-5 elementary school in an upper-middle class suburban community. Their Total Reading Grade Equivalent scores on the SRA Achievement Series, 1985 edition, administered at the end of the second grade, ranged from 2.5 to 3.4.

The study was conducted by the classroom teacher over a ten week period, during which time the students read ten stories in their basal reader, Widening Circles, Level 8, of the Bookmark Reading Program by Harcourt, Brace and Jovanovich, 1979.

Reading instruction for the first five story units proceeded in the traditional manner, as suggested by the teacher's guide. The only exception was that following the introduction of the vocabulary and the initial silent reading of the story, each student read a passage from the story of approximately 100 words to the teacher, who timed the reading and noted the number of word recognition errors. At the conclusion of instruction for the story unit, the student reread the identical passage and the teacher again recorded the reading rate and the number of errors.

Prior to the introduction of the remaining five instructional units, the teacher made a tape recording of each new story, pacing the recording speed to a comfortable reading rate for the students and adjusting phrase length appropriately.

Following the introduction of the vocabulary and silent reading of each of the remaining stories, the teacher followed the same procedure of timing and recording errors on a passage from the new story as read by each child in the group. However, following the initial timing, each student independently listened to the prerecorded tape of the story and continued to reread the story with the tape, using headphones, until s/he felt s/he could read the story fluently. The teacher again timed the oral reading of the original passage for each story and noted the reading rate and number of errors. Group instruction for each story unit proceeded normally with the exception of the repeated reading of the story by the students.

The results were plotted on a graph indicating reading rate and number of errors. T-tests of the significance of differences between the means of the first and second readings of stories completed with and without repeated readings were made.

Results

Table I contains the results of statistical analysis

Table I

Group Reading Rate Without Repeated Reading

	M	SD	t	Significance
Pretest	83.69	16.21	.88	Not Significant
Postest	93.8	19.83		

of the pretest and postest reading rates of the subjects when reading instruction proceeded in the usual manner, as suggested by the teacher's guide accompanying the series used. Applying statistical tests to the mean difference between pretest and postest reading rates yielded a *t* of .88, which was determined to be non-significant. The sample did, however, show a mean gain of over 10 words per minute during this period.

Table II contains the results of statistical analysis

Table II

Group Reading Rate With Repeated Reading

	M	SD	t	Significance
Pretest	93.47	27.21	1.20	Not Significant
Postest	114.98	26.16		

of the pretest and postest reading rates of the subjects when repeated reading of the stories was included as part of the instructional precedure. Applying statistical tests to the mean difference between the pretest and postest scores yielded a *t* of 1.20, which again, is found to be non-significant. However, the mean gain in this case was over 21 words per minute. A statistical check on the differential mean gains between the samples was also inconclusive since the mean gains approximated the gains of the samples.

Figures 1 and 2 below illustrate the average oral reading rate and percentage of word recognition errors for the group when tested before and following instruction in the traditional basal reader method or including repeated reading as a component of the lesson design. Repeated reading of the stories did not significantly affect the number of word recognition errors because very few errors were made in the pretests and postests of both instructional procedures. The readability level of the passages and their short length may have contributed to the small number of word recognition errors.

Figure 1

Oral Reading Rate and Percentage of Word Recognition Errors of Group With Traditional Instruction

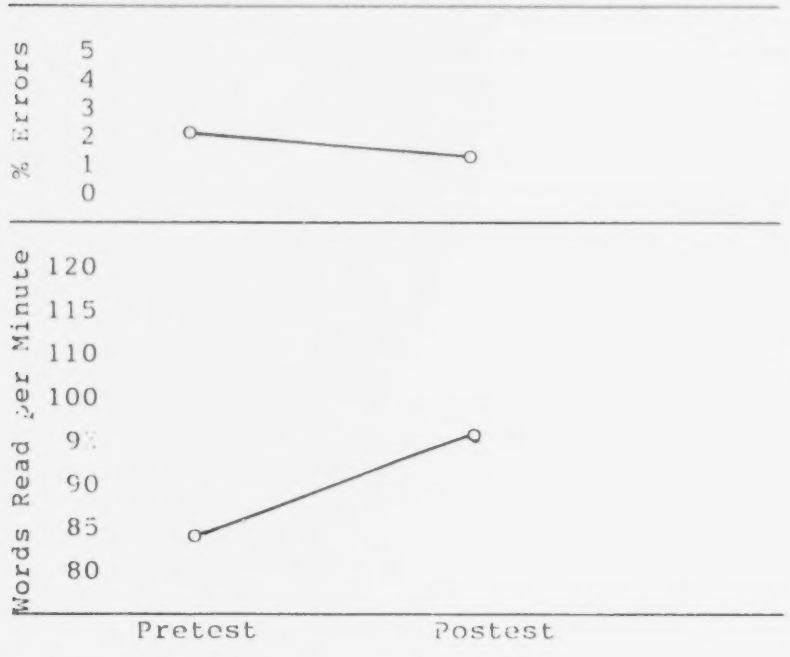
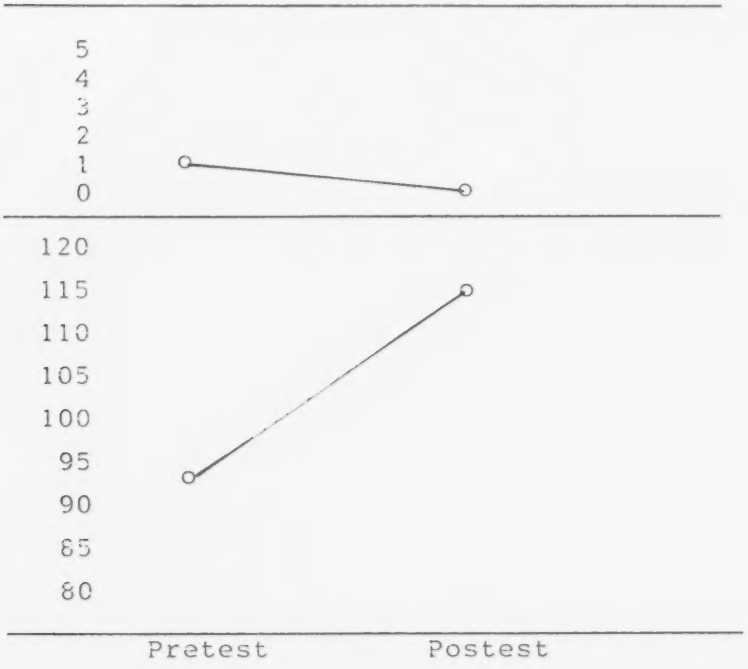


Figure 2

Oral Reading Rate and Percentage of Word Recognition Errors of Group With Repeated Reading



Conclusions and Implications

The results of the study demonstrated that the repeated reading of the basal reader stories in a developmental reading program did not help slow readers develop fluency. Altering the format of the reading lesson to include repeated reading of the story while listening to a tape recording of the story did not increase fluency in the reading group studied. This study did not support the findings of related studies which determined that the use of repeated readings was an effective method of increasing fluency in slow readers.

One factor that may have affected the results of the study was the amount of time the students were exposed to the experimental procedure. The students engaged in repeated reading of the stories for five weeks, but five weeks might not have been sufficient time for the children to learn to use prosodic cues and syntactical structure to assist them in reading fluently.

Another factor that may have affected the results of the study was the relatively short length of the passages the students read to the teacher for pretesting and postesting. The 100 word passages may not have been long enough to give a reliable reading rate. Certainly, the passages were not of sufficient difficulty to produce a number of word recognition errors that would permit comparisons of reading rate and number of errors.

Of particular interest was the fact that following the conclusion of the experimental procedure, the students continued to request tape recordings of the stories in their basal reader. Some of the students were clearly disappointed that there were no more tapes and said that they thought the tapes helped them read the stories better. Samuels (1979) stated that repeated reading would enable the reader to focus on understanding what he was reading rather than focus on word recognition. Perhaps the freedom from the constraints of word recognition difficulties allowed the students to more easily comprehend the text, which they interpreted as

"reading the stories better." Future studies in this area should pretest and postest comprehension.

Considering the bulk of research that supports the use of repeated reading to increase fluency in slow readers, it must be concluded that the inclusion of the method of repeated reading into the developmental reading program conducted in a classroom warrants further study. In addition, the favorable response of the students to the method must not be overlooked, despite the fact that the data produced by this study does not support the use of the method in a developmental reading program with slower readers.

BUILDING FLUENCY THROUGH REPEATED READING:

RELATED RESEARCH

A problem challenging teachers of reading is that of providing effective instruction to enable the word-by-word reader to become a fluent reader. How is the shift from decoding to fluency best achieved?

The fluent reader, as described by LaBerge and Samuels (1974), has mastered all of the reading skills and processes information instantly and effortlessly. Comprehension and decoding are simultaneous, and the reader views his own reading as a holistic process. Samuels (1979) identifies accuracy and speed as component skills of fluency.

The method of repeated readings, described by Samuels (1979), is an oral reading technique to develop fluency that can supplement a developmental reading program or be used with problem learners. The method requires the student to read a short, interesting, easy passage of between 50 and 200 words several times. He then reads it to a teacher who records his reading speed and the number of word recognition errors on a graph. The student continues to reread the same passage until he feels he can read it fluently. He again reads the passage to the teacher, who records the new data. If a criterion for fluency is met, the student moves on to a new passage and repeats the procedure.

Samuels provides research data to support his theory that repeated reading of a passage results in a decrease in word recognition errors and an increase in reading speed. Samuels also found the initial reading of successive passages

to yield fewer word recognition errors and an increase in speed. Fewer rereadings were required to master the passages. Therefore, Samuels asserts, fluency is increased through repeated readings.

The rationale for the method of repeated readings is derived from the theory of automatic information processing in reading, developed by LaBerge and Samuels in 1974. The model, as described by the authors, demonstrates "the stages involved in transforming written patterns into meanings and relates the attention mechanism to processing at each of these stages" (p. 294).

Although many kinds of information can be processed simultaneously, according to the automaticity theory, attention can be focused on only one thing at a time, a characteristic the authors call the "limited-capacity property of attention" (p. 298). A skill is "automatic" if it can be processed while the reader is directing attention to another skill. Therefore, fluency is achieved when "the reader can maintain his attention continuously on the meaning units of semantic memory, while the decoding from the visual to semantic systems proceeds automatically" (p. 313).

In the consideration of how reading skills become automatic, LaBerge and Samuels focus on the importance of practice and conclude that repetition of perceptions of word units enables the reader to decode automatically and focus attention on meaning. They say:

> ...when the child reads text in which the same vocabulary is used over and over again, the repetitions will certainly make more automatic the perceptions of each word unit, but if he stays at the word level he will not realize his potential reading speed. If, however, he begins to organize some of the words into short groups or phrases as he reads, then further repetitions can strengthen these units as well as word units. In this way he can break through the upper limit of word-by-word reading and apply the benefits of further repetitions to automatization of larger units (LaBerge & Samuels, 1974, p. 315).

Thereby, fluency is attained.

Samuels' (1979) utilization of repeated readings as a method to develop fluency provides sufficient practice to automatize decoding, which results in increased word recognition and speed, allowing the reader to focus his attention on meaning.

A review of the research related to methods of oral reading employed to develop fluency yields little documentation prior to 1970. Recent studies of the uses or oral reading in instructional settings to develop fluency have resulted largely from the work of LaBerge and Samuels (1974) in automatic information processing.

In establishing a historical perspective for his study in which he sets forth the method of repeated readings, Samuels (1979) remarks that when children learned to read from the Bible or by using hornbooks, they were really using repeated reading to become fluent readers. They had already committed the material to rote memory and by reading the same passages over and over again, decoding became automatic and attention could be focused on understanding.

LaBerge and Samuels (1974) refer to the work of Edmund Huey (1908), who stressed the importance of repeated practice in mastering a skill:

> ...To perceive an entirely new word or other combination of stroke requires considerable time, close attention and is likely to be imperfectly done, just as when we attempt some new combination of movements, some new trick in the gymnasium, or a new serve at tennis. In either case, repetition progressively frees the mind from attention to details, makes facile the total act, shortens the time, and reduces the extent to which consciousness must concern itself with the process (Huey, 1908, p. 104).

One of the characteristics of a fluent reader is the ability to decode quickly. It has been hypothesized that if poor readers could be helped to decode quickly, their comprehension would increase. Fleisher, Jenkins and Pany (1979), among others, conducted research to determine whether increasing the decoding speed of poor readers would affect comprehension. They found that practice in decoding of words in isolation, or in phrases, increased the speed of decoding, but did not improve comprehension. The comprehension scores of the subjects continued to be lower than the scores of their skilled reader counterparts. Other studies have yielded similar results. The implication of the findings, in view of the theory of automaticity, is that isolated word practice does not produce the level of automaticity needed for comprehension to take place. Fleisher, et. al. (1979) state, "word practice does not generalize to reading in context" (p. 47).

Few studies exist that analyze the effect of rereading passages on reading performance. One of the studies was

conducted by Gonzales & Elizah (1975) to determine whether repeated oral reading of passages by third grade developmental readers produced a difference in word recognition errors. The study was motivated by a need to resolve questions about the administration of the IRI as a diagnostic tool.

The authors found that, although there was no difference in the types of errors made on reading passages at the instructional and frustration levels, the number of errors decreased on the second reading. It was concluded that the errors made on one reading of a passage can be a good indicator of the needs of the student, and the rereading of a passage decreases the difficulty of the material for the reader.

Carol Chomsky (1976) developed a method of oral rereading for five third grade remedial readers in response to a plea for guidance from their teacher. Chomsky determined that the focus of instruction needed to shift from fragmented skills instruction, typical of many remedial programs, to reading in context. She tape-recorded short, interesting books of the students' choice, which the students read independently along with the tapes until they could read the books fluently without the tapes. Chomsky developed skills lessons and other instructional activities from the books. Gains in reading resulted, but Chomsky found the enthusiasm for reading, positive attitudes toward reading, and the improvement in self-concept among the readers to be the greatest results of the study.

Samuels (1979) found in his study, described earlier in this paper, that gains in comprehension resulting from the use of repeated readings to develop fluency were minimal at first, but increased with subsequent readings of the passage. He explains the gradual increase in comprehension in view of the automaticity theory. At first, the reader is in a non-accuracy stage, where his attention is focused on decoding. He then moves to the automatic stage, where he focuses on reading the words correctly, in a word-by-word fashion. Finally, after sufficient exposure to the words, the reader progresses to the automatic stage, where he reads quickly, comprehending simultaneously. The focus of attention is on understanding the meaning of the passage. The use of repeated reading, therefore, helps the reader recognize words accurately through repeated exposure and provides time, in the form of unlimited practices, for the student to develop speed of word recognition. As stated previously, Samuels has determined speed and accuracy to be the components of fluency. With automatic decoding, attention can be focused on comprehension.

Schreiber (1980), curious about the success of the studies developing fluency through repeated reading, conducted by Samuels (1979) and Chomsky (1976), looked closely at the methods and the theory of automaticity in order to determine what skill was being developed in the readers that enabled them to move from reading word-by-word to fluency.

Schreiber says that Samuel's research does not provide an explanation. Schreiber, however, defines the skill as the development of the ability of the students to utilize graphic cues to provide corresponding language signals, or prosodic cues, to give meaning to the passage. Prosodic cues, which are stress, duration, and intonation, are important signals in spoken language and aid comprehension, but they are absent in written language.

The method of repeated reading provides sufficient practice to enable the reader to make sense of the written language. However, the addition of an oral reading model of the passage read can greatly assist the reader in his task of learning the prosodic cues. A critical difference between the reading models of Samuels (1979) and Chomsky (1976) is Chomsky's use of tape recorded stories to accompany the readings. Samuels states that the use of tapes is optional.

Kenneth Hoskisson, in his article, "The Many Facets of Assisted Reading" (1975), refers to Smith's (1971) theoretical framework for reading, presented in Smith's book, Understanding Reading. Smith views reading from the perspective of language. He says that children already know how to understand spoken language when they begin to learn to read, but they don't know how to understand the language of print, and must be guided by teachers and parents. Hoskisson (1975) says that adults can help by reading to children from the time they are very young, having them repeat a word at a time, then

a phrase, a sentence, and a passage. Hoskisson refers to his method as "assisted reading." The model moves gradually from dependence on the spoken model, when the child is beginning to learn to read, to independence.

In discussing his model, Hoskisson says:

> ...Assisted reading qualifies as a logical means of giving children the experience in reading they need in order to acquire the visual or graphic features that will allow them to use their knowledge of the language and their cognitive skills in learning to read in the natural way they have learned their spoken language (p. 313).

In 1969, Heckelman presented the neurological impress method to improve comprehehsion and encourage fluency in slow readers. It contains an oral component, but it does not utilize repeated reading. In practice, the teacher positions himself behind the student, reading into his ear while running his finger under the words in the text. The student reads along with the teacher, keeping pace with the teacher's reading and eventually sliding his own finger under the words and leading the reading. Research findings about the effectiveness of the NIM are inconclusive because the studies were often uncontrolled and used small samples. However, anecdotal evidence suggests that students using the neurological impress method are motivated to read independently and develop more positive attitudes toward reading.

Oral reading techniques to develop fluency as they are described in the research utilize four basic instructional strategies. The neurological impress method, developed by Heckelman (1969), has the student and teacher reading

simultaneously. Echo reading, seen in the designs of Hoskisson (1975) and Chomsky (1976), requires the student to listen first, then read. Assisted reading, as Hoskisson terms his method, is a three stage process of reading instruction moving from echo reading at the earliest stages through cloze procedures and finally, to independence. The method of repeated readings, developed by Samuels (1979), has the student practice reading one passage until he achieves fluency. The teacher keeps records of progress in rate and error reduction, a facet Samuels considers to be a motivator.

Although the instructional strategies to develop fluency have been grouped into four areas, the methods in use have been adapted to programs to fill special needs. Components have been eliminated from designs, or combined with components of other designs to create new methods of helping readers become fluent.

Advantages of the oral reading techniques to develop fluency are that the reading practice takes place in context, failure is eliminated, the methods are multi-sensory, and provide immediate feedback to the reader. Disadvantages, such as time spent in record-keeping, or keeping the reader's attention focused on the text have been minimized in programs by adjusting various elements in the implementation of the programs. In any case, the advantages of utilizing methods of oral rereading to develop fluency in slow readers far outweigh any disadvantages.

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APPENDIX

Average Oral Reading Rates and Percentage of Word Recognition Errors of Subjects With Traditional Instruction

	Average Reading Rate		Percentage of Word Recognition Errors	
Subject	Pretest	Postest	Pretest	Postest
A	80.57	89.31	2%	1%
B	78.35	95.30	4%	1%
C	104.55	120.69	2%	1%
D	93.31	98.30	1%	0
E	61.66	65.40	2%	1%
Group Average	83.69	93.8	2%	1%

Average Oral Reading Rates and Percentage of Word Recognition Errors of Subjects With Repeated Reading

	Average Reading Rate		Percentage of Word Recognition Errors	
Subject	Pretest	Postest	Pretest	Postest
A	77.9	111.59	1%	0
B	94.5	112.0	2%	0
C	133.2	157.5	1%	0
D	101.14	118.59	0	0
E	60.60	75.22	1%	0
Group Average	93.47	114.98	1%	0